



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

DATE: JUL 15 2017

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
General Iron Industries, Inc. Chicago, Illinois

FROM: Scott Connolly, Environmental Engineer
AECAB (IL/IN)

THRU: Natalie Topinka, Acting Section Chief
AECAB (IL/IN)

TO: File

BASIC INFORMATION

Facility Name: General Iron Industries, Inc.

Facility Location: 1909 N. Clifton Avenue, Chicago, Illinois 60614

Date of Inspection: June 13, 2017

Lead Inspector: Scott Connolly Environmental Engineer, US EPA

Other Attendees:

1. Charles Hall, Environmental Engineer, US EPA
2. Adam Labkon, Plant Manager, General Iron Industries
3. Jim Kallas, Environmental Manager, General Iron Industries

Purpose of Inspection: To address the facility's compliance with the Clean Air Act and to follow up on citizen complaints of fugitive particulate matter and intermittent burning metal odors.

Facility Type: Metal Shredding and Recycling Facility

Arrival Time: 8:20 am

Departure Time: 12:15 pm

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from Adam Labkon or Jim Kallas unless otherwise noted.

Process Description:

General Iron Industries (General Iron) obtains and processes scrap metal received by truck from demolition companies, auto scrappers, peddlers and other recycling services. Generally, loads of scrap metal are unloaded from trucks into large piles, both at the shredder and at other locations onsite. The shredder processes mostly demolition waste and postconsumer scrap, with a smaller portion of auto bodies. Cranes load scrap metal onto a conveyor, which feeds metal into the hammermill shredder. A water injection system sprays water into the shredder to reduce dust and cool the metal. A capture hood encloses most of the shredder and routes air emissions through a cyclone and roll-fabric filter before exhausting into the shredder building. Shredded metal exits the shredder and is fed through a magnetic separator, which separates non-magnetics from ferrous metal. Additional non-ferrous is removed in a z-box cyclone and stored in piles before front loaders transport it to the non-metallic separation area. Non-ferrous metals are separated from non-metallics through a series of air separators. Some non-ferrous metals are separated and sold as a mixture and some are sold separately. Non-metallic fluff is sent by truck to a landfill. Ferrous metal is transported to steel mills by truck or barge.

Staff Interview: The shredder is currently operating with a backup 7,000 horsepower electric motor, but usually operates with its main 8,350 horsepower electric motor. Facility staff stated that the main motor was being repaired at the time of the inspection. The shredder is equipped with a smart water injection system that has the capabilities to run in automatic and manual modes, but General Iron currently operates it in manual mode and hasn't operated in automatic mode for a long time. General Iron accepts white goods and items that contain regulated refrigerants. Facility staff stated that they have certified equipment and personnel to remove and capture refrigerants prior to shredding. Facility staff stated that every scrap dealer must have a signed scrap acceptance agreement on file, that states that dealers will disclose if items have had refrigerant removed.

TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations:

During the time of the inspection General Iron was operating several pieces of water spraying and misting equipment. The fine mist created a light, but visible haze over the facility, see

IMG_0416, but was distinguishable from visible dust with closer inspection. I observed that after air from the shredder hood was routed through the control devices it was routed back into the shredder building, which has open vents at the top. Particulate matter emissions were observed escaping a gap between the rubber flaps covering the entrance to the magnetic separator, the gap is visible in IMG_0414. I observed a scrap loading crane emit white smoke while idling, see IMG_0415. Shredder fluff and dust was observed on the outside of the magnetic separator, z-box and connected equipment.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

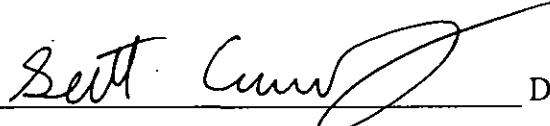
Requested documents:

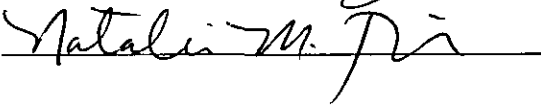
- Shredder Operating hours for the past year
- Log of Explosions and Fires in the shredder for the past year
- Copy of scrap inspection requirements
- Production records of scrap and autos in tons for the past two years.
- Documentation of with the fabric filter started operations

Compliance Assistance: EPA suggested that General Iron repair the enclosure to the magnetic separator to prevent excess fugitive particulate emissions.

Concerns: Visible smoke was observed emitting from loading crane until it was mentioned to facility staff.

SIGNATURES

Lead Inspector:  Date: 6/27/17

Section Chief:  Date: 7/5/17

Facility Name: General Iron Industries

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APPENDICES AND ATTACHMENTS

- Appendix A: Photos

Facility Name: General Iron Industries
Facility Location: 1909 N. Clifton Avenue, Chicago, Illinois
Date of Inspection: June 13, 2017

APPENDIX A: FIELD NOTES AND FIELD MEASUREMENT DATA

SEE ATTACHED CD FOR ON APPENDIX A PHOTOS.

| Photo No. | Date and Time | Description |
|------------------|---------------------------|--|
| IMG_0410 | June 13, 2017 at 10:44 AM | Fabric filter building and cyclone, controlling air emissions from shredder. Inlet to fabric filter is equipped with explosion vents. |
| IMG_0411 | June 13, 2017 at 10:46 AM | Fabric filter. "Dirty side." |
| IMG_0412 | June 13, 2017 at 10:54 AM | Shredder hood as observed from control room. The shredder inlet is seen at the bottom right side of the image. |
| IMG_0413 | June 13, 2017 at 11:36 AM | Exit of shredder building, including magnetic separator and z-box. |
| IMG_0414 | June 13, 2017 at 11:36 AM | Exit of shredder building, including magnetic separator and z-box. "Dust Hog" water sprayer is visible on the left side of the image. The conveyor to barge loading is visible at the back left side of the image. |
| IMG_0415 | June 13, 2017 at 11:36 AM | Smoke visible exiting crane |
| IMG_0416 | June 13, 2017 at 12:00 AM | Shredder building, z-box ferrous metal piles and un-shredded material as viewed from the north side of the facility, looking south. |